

WHAT IS CLAIMED IS:

1. A method for disseminating weather information to a mobile vehicle, comprising:

collecting weather data;

forming weather products based on the weather data; and

transmitting the weather products during the broadcast of a commercial radio frequency signal from a plurality of commercial broadcast stations.

2. The method of claim 1 wherein the step of transmitting the weather products further comprises modulating a television broadcast signal with the weather products during a vertical blanking interval of the television broadcast signal.

3. The method of claim 1 wherein the step of transmitting the weather products further comprises modulating a sub-carrier authorization signal of an FM radio broadcast signal with the weather products.

4. The method of claim 1 further comprising providing the weather products to a satellite for transmission to the plurality of commercial broadcast stations.

5. The method of claim 1 wherein the weather products are selected from text-based information, image-based information and weather alerts.

6. The method of claim 1 wherein the commercial radio frequency signal is transmitted from a broadcast station, and wherein the weather products comprise weather information for the geographical area proximate the broadcast station.

7. The method of claim 1 wherein the weather products are displayed within the mobile vehicle in conjunction with a map of the geographic area to which the weather products pertain.

8. The method of claim 7 wherein the vehicle includes a data storage device, and wherein the map has been stored within the data storage device for display in conjunction with real time receipt of the weather products.

9. The method of claim 1 wherein the weather products are represented by a data bit stream, and wherein the step of transmitting the weather products comprises modulating the commercial radio frequency signal with the data bit stream.

10. The method of claim 9 wherein the step of transmitting further comprising compressing the data bit stream.

11. The method of claim 10 wherein the step of compressing the data bit stream comprises adaptively compressing the data bit stream.

12. The method of claim 11 wherein the weather products are generated at a generation rate and each weather product comprises data bits, and wherein the adaptive compression of the data bit stream is responsive to the generation rate and the number of data bits in the weather products.

13. The method of claim 1 wherein each weather product is assigned to a service pack, and wherein the step of broadcasting the weather products comprises broadcasting the weather products in the form of service packs, and further comprising at the mobile vehicle receiving one or more predetermined service packs of weather products.

14. The method of claim 13 wherein an operator of the mobile vehicle subscribes to receive one or more service packs, and wherein the predetermined service packs of weather products received at the mobile vehicle are responsive to the one or more subscribed service packs.

15. The method of claim 1 further comprising displaying the weather products with a web browser.

16. The method of claim 15 further comprising receiving, reconstructing and displaying the weather products on a portable communications receiving device in the vehicle.

17. A method for disseminating weather information to a mobile vehicle, comprising:

collecting weather data;

forming weather products based on the weather data; and

transmitting the weather products as one or more of text and graphics information over a cellular telephone communications system.

18. The method of claim 17 wherein the cellular telephone communications system comprises an available bandwidth for transmitting the

weather products, the method further comprising adaptively preprocessing the data bit stream to accommodate the available bandwidth.

19. The method of claim 18 wherein the step of adaptively preprocessing further comprises compressing the data bit stream to accommodate the available bandwidth.

20. The method of claim 17 wherein the weather products are selected from text-based information, image-based information and weather alerts.

21. The method of claim 17 wherein the step of transmitting is executed in response to a cellular telephone call by a user of the mobile vehicle.

22. An apparatus for receiving signals representing weather products broadcast by a commercial broadcast station, the apparatus comprising:

a receiver for receiving the signals;

a reconstruction device for forming the weather products from the signals; and

a display responsive to the reconstruction device for displaying the weather products.

23. The apparatus of claim 22 wherein the receiver is automatically tuned to the frequency of the commercial broadcast station in the area where the apparatus is located.

24. The apparatus of claim 22 further comprising a navigation device for determining the current position of the apparatus, wherein the reconstruction device is responsive to the navigation device for reconstructing weather products depicting weather at the current position of the apparatus.

25. The apparatus of claim 22 wherein the weather products are in the form of web pages, and wherein the display device further comprises a web page browser for displaying the weather products.

26. The apparatus of claim 25 wherein the web page browser is controllable to display successively more detailed weather products.

27. The apparatus of claim 25 further comprising a web page server for storing the web pages for retrieval by the web page browser.

28. The apparatus of claim 22 wherein the display displays a geographical map in conjunction with the displayed weather products.

29. The apparatus of claim 22 further comprising weather data sources, wherein the weather products are generated at a weather products generator in response to the weather data sources.

30. The apparatus of claim 22 wherein the reconstruction device further comprises a controllable input device for directing the reconstruction device to form a specified weather product from the signals.

31. The apparatus of claim 22 wherein the reconstruction device and the display comprise one of a portable computer, a personal digital assistant and a portable communications device.

32. The apparatus of claim 31 wherein the portable communications device further comprises a data processor, a display, and a human interface for input and output control.

33. An apparatus for receiving signals representing weather products transmitted by a cellular network, the apparatus comprising:

- a cellular telephone for requesting transmission of the signals;
- a receiver for receiving the signals;
- a reconstruction device for forming the weather products from the signals; and
- a display responsive to the reconstruction device for displaying the weather products.